

## **Heft 73**

### **Einfluss kurzzeitigen Erhitzens auf die gestaltende Vitalaktivität im Steigbild**

*Uwe Löffler*

In the food and pharmaceutical industries heat-treatment is widely used to reduce the microbial burden. As a result of new requirements in the pharmaceutical industry many animal-derived pharmaceuticals are autoclaved. Against this background the question arises as to whether heat-treatment leaves the substances treated unchanged or whether changes are detectable. As an example, in the work presented here carried out with the help of capillary dynamolysis, we describe the effect of brief heating of lemon juice on its vitality as a measure of quality. It can be demonstrated that moderate temperatures cause a clearly visible change in the vitality.

### **Prozesse an Flüssigkeitsoberflächen – Wirkungen oberflächenaktiver Substanzen im Tropfbild und in den Alveolen der Lunge**

*Gero Leneweit, Reinhard Koehler, Andreas Wilkens, Michael Jacobi*

Fluid surfaces are areas where fascinating interactions between the effects of certain substances and fluid motions develop. For the understanding of such processes some phenomena of surface activity are demonstrated and described in physical terms. Due to its high sensitivity to surface active agents, the drop picture method is a suitable means to detect even trace amounts of these substances. This is shown by a study of adsorption of aqueous extracts from mistletoe (*Viscum album* L.) on glass surfaces. The relevance of surface activity for physiological processes is demonstrated at the alveoli of the lung. It can be seen how the properties of the air/water interface are changed by the influence of surface active agents in the lung to serve life-preserving processes in humans and animals.

### **Zum Verständnis des Kreisels – Ein Beispiel für den Erkenntnisvorgang**

*Johannes Kühl*

With reference to a place in Rudolf Steiner's so-called Bologna lecture I wanted to study how the 'I' is experienced before and during an act of cognition. The behaviour of a gyroscope, in particular the onset of precession, was investigated as an example. A suggestion is made for the formulation of a primal phenomenon in Goethe's sense. Finally this is traced back to the principle of inertia. One can observe when looking back how in a cognitive process the separation of subject and object is removed and the I is experienced as not enclosed in the body but linked to 'the object'.

### **Johanniskraut (*Hypericum perforatum* L.) als lebendige Imagination der Depression**

*Torsten Arncken*

The connection between the appearance of *Hypericum perforatum* and the clinical picture of depression is discussed. Through the method of presentation this paper attempts to enable recognition in a living imaginative way of the connections which extend beyond object-consciousness. *H. perforatum* shows a qualitative displacement with respect to the plant archetype: pigments and oil are deposited in the leaves. These substances normally occur in

the flowers (coloration) or the seeds (oil). In relation to the human being, this deposition is an image of the penetration of substances of the ego and will organisations in the feeling life. This corresponds to the pattern of depression described in the literature. *H. perforatum* also shows a very reduced leaf metamorphosis. In the present context this is a picture of the situation in which the patient is no longer able to respond to sense impressions and becomes fixed. This is a symptom of depression.